

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015758**Date Inspected:** 22-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 3W/4W Weld ID: D1 & D2, Face A
- 2). OBG Field Splice 3W/4W Weld ID: D2, Face B
- 3). OBG Field Splice 3W/4W Weld ID: B1, Face B
- 4). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face A
- 5). OBG Field Splice 5W/6W Weld ID: F1, Face A
- 6). OBG Field Splice 5W/6W Weld ID: A1, Face A
- 7). OBG Field Splice 3E/4E Weld ID: D1 & D2, Face B

- 1). OBG Field Splice 3W/4W Weld ID: D1 & D2, Face A

The QAI periodically observed SE QC Inspector Tom Pasqualone performing visual inspection of the A Face of OBG Field Splice 3W/4W Weld ID: D1 & D2. Mr. Pasqualone marked several areas of excessive reinforcement for grinding and some areas that were marked for additional welding to repair low areas. The QAI then periodically observed AB/F approved welder Fred Kaddu (2188) and other AB/F personnel performing grinding to remove the excessive reinforcement. The QAI did not observe welding at this location on this date. Work observed at this location appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 3W/4W Weld ID: D2, Face B

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The QAI periodically observed AB/F approved welder Rory Hogan (ID 3186) performing in process welding on the B face of OBG Field Splice 3W/4W Weld ID: D2. The welding was per the FCAW-G process in the 4G (overhead) position. SE QC Inspector Tony Sherwood was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3110-4. The QA observed that Mr. Sherwood obtained the following welding parameters: welding amps = 238, welding volts = 24.5, travel speed = 192mm/min and the calculated Heat Input was 1.82 kJ/mm. The welding was in process and the work at this location appeared to be in general compliance with contract documents.

3). The QAI periodically observed AB/F approved welder Jin Pei Wang (ID 7299) performing grinding of the weld cap and base metal adjacent to the weld to prepare the B face for Non-destructive Testing (NDT).

4). OBG Field Splice 5W/6W Weld ID: D1 & D2, Face A

The QAI periodically observed the in process grinding of SAW reinforcement. Work appeared to be complete at this location.

5). OBG Field Splice 5W/6W Weld ID: F1, Face A

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) setting up to perform FCAW-G of the A face of OBG Field Splice 5W/6W Weld ID: F1. The QAI performed a fit-up inspection at this location prior to any welding and recorded areas of planar misalignment. The planar misalignment did not appear to exceed AWS D1.5 tolerances per section 3.3.3. No welding was performed on this date at this location during the QA Inspectors shift.

6). OBG Field Splice 5W/6W Weld ID: A1, Face A

The QAI periodically observed AB/F approved welder James Zhen (ID 6001) grinding to excavate Ultrasonic Testing (UT) rejected indications on the A face of the OBG Field Splice 5W/6W Weld ID: A1. The QAI noted that there are several indications marked on the weld A1. The (3) three indications (shown in the photo below) are in the 20mm thick Corner Assembly weld that was observed by the QAI on 7-9-10 to be welded per the FCAW-G process by AB/F approved welder Hua Quiang Hwang (ID 2930).

7). OBG Field Splice 3E/4E Weld ID: D1 & D2, Face B

The QAI periodically observed SE QC Inspector Jesse Cayabyab performing UT from the B Face of OBG Field Splice 3E/4E Weld ID: D1 & D2. Mr. Cayabyab utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of UT repairs in the splice welds. The QC technician performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face B during this shift and the QAI spoke with the QC inspector regarding the UT results. See the Summary of Conversations below.

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Summary of Conversations:

From Item 7).

The QC Inspector Mr. Cayabyab pointed out (2) rejectable indications in weld D2 and one in weld D1. The QC Inspector stated that the repairs of some of these indications are going to be repair cycle R-3.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

Inspected By:	Madison,Bert
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Quality Assurance Inspector

Reviewed By:	Levell,Bill
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QA Reviewer
